

LISTING OF CLAIMS

1. (Currently Amended) A device for direct delivery of a ~~shear thickening non-~~
Newtonian fluid having therapeutic properties to a target site, the device comprising:
a channel having a proximal end and a distal end and a lumen extending
therethrough, the lumen having a longitudinal axis, the channel containing a ~~shear~~
~~thickening non-Newtonian~~ fluid having therapeutic properties, the channel configured to
expose the ~~shear thickening~~ fluid to a viscosity adjuster; and
wherein the viscosity adjuster comprises at least two non-overlapping projections
extending from one or more walls of the channel and leaving an open flow channel
parallel to the lumen's longitudinal axis.
- 2-18. (Cancelled)
19. (Currently Amended) A method for directly delivering a ~~shear thickening non-~~
Newtonian fluid having therapeutic properties to a target site, the method comprising:
loading the fluid in a channel, the channel having a lumen and a viscosity
adjuster, the lumen having a longitudinal axis, and the viscosity adjuster comprising at
least two non-overlapping projections extending from one or more walls of the channel
and leaving an open flow channel parallel to the lumen's longitudinal axis;
adjusting the viscosity of the fluid by exposing the fluid to the viscosity adjuster
of the channel; and
delivering the fluid to a target site.
20. (Previously Presented) The method of claim 19, wherein adjusting the viscosity
increases the viscosity of the non-Newtonian fluid.
21. (Cancelled)
22. (Previously Presented) The device of claim 1, wherein the viscosity adjuster is at
the distal end only of the lumen.

23. (Previously Presented) The device of claim 1, wherein the shear thickening fluid having therapeutic properties comprises a shear thickening fluid pre-loaded with a therapeutic.

24. (Previously Presented) The device of claim 1, wherein the therapeutic is a pharmaceutically active compound.

25. (Previously Presented) The method of claim 19, wherein the viscosity adjuster is at the distal end only of the lumen.

26. (Previously Presented) The method of claim 19, wherein the shear thickening fluid having therapeutic properties comprises a shear thickening fluid pre-loaded with a therapeutic.

27. (Previously Presented) The method of claim 19, wherein the therapeutic is a pharmaceutically active compound.

28. (New) The device of claim 1, wherein at least one of the at least two non-overlapping projections comprises a post- or peg-like shape.

29. (New) The device of claim 1, wherein at least one of the at least two non-overlapping projections comprises a truncated cone shape.

30. (New) The device of claim 1, wherein at least one of the at least two non-overlapping projections comprises a ridged shape.

31. (New) The device of claim 1, wherein the at least two non-overlapping projections define at least one constricted flow orifice.

32. (New) The device of claim 31, wherein the at least one constricted flow orifice comprises a single flow orifice having a circular shape.

33. (New) The device of claim 31, wherein the at least one constricted flow orifice comprises a single flow orifice having an ovular shape.

34. (New) The device of claim 31, wherein the at least one constricted flow orifice comprises a plurality of circular-shaped flow orifices.

35. (New) The device of claim 1, wherein the at least two non-overlapping projections extend in a substantially perpendicular direction from the one or more walls of the channel.

36. (New) The device of claim 1, wherein the non-Newtonian fluid is a shear-thickening fluid.

37. (New) The device of claim 1, wherein the non-Newtonian fluid is a shear thinning fluid.

38. (New) The device of claim 1, wherein the non-Newtonian fluid is a Bingham fluid.

39. (New) The method of claim 19, wherein adjusting the viscosity of the fluid decreases the viscosity of the fluid.